

# 'Water pillow' offers cervical pain relief

BY AMANDA KREIDIÉ

BALTIMORE — Investigators at Johns Hopkins University have given the nod to a Canadian-designed pillow that reduces cervical pain.

Created by Mediflow Inc. of Markham, Ont., the pillow features a four-inch top layer of polyester fibre and a water-filled pouch encased in a reflector blanket at its base.

The investigative team at the university hospital's pain centre studied the usefulness of the pillow after being approached by its inventor.

## Heavy medication

"We explored ways of improving sleep quality for patients with chronic neck and back pain that did not involve heavy medication use," said Dr. Marco Pappagallo, assistant professor of neurology and co-author of the study.

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leagues reported in *Archives of Physical Medicine and Rehabilitation*.

Their conclusions were based on a five-week crossover study which compared subjective assessment of cervical pain when using their customary pillow, a cylindrical polyester fibre-filled roll pillow and the water-based headrest.

In all, 20 men and 21 women between 26 and 76 years of age were involved in the study. To qualify for inclusion, patients had to have chronic axial neck pain attributable to either post-traumatic muscle tear or osteoarthritis.

The duration of neck pain for the cohort ranged from one month to 25 years, with 78% of patients reporting pain to be at least a year old. Twenty-three subjects experienced pain daily, 13 of them characterizing it as constant. The remainder reported experiencing neck pain at least once weekly.

Subjects were instructed to continue their usual activities and exercise routines and to maintain stable medication regimens (25 were taking non-steroidal anti-inflammatory drugs and acetaminophen) during the course of the study.

During the first week, patients slept using their usual pillows. They were subsequently randomly assigned to use the roll pillow and the water-based pillow for two-

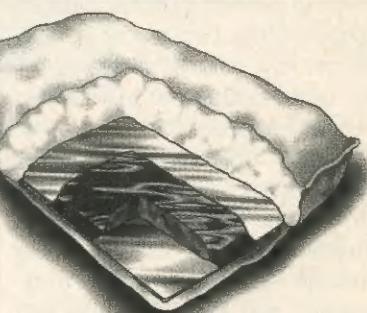


A recently released study shows that the Canadian-invented waterbase pillow reduces neck pain and associated headaches and improves quality of sleep.

week periods.

"We chose to use a roll pillow as a basis for comparison because physiotherapists routinely recommend it for patients with benign cervical pain syndromes," explained Dr. Pappagallo.

Upon awakening, and again at bedtime, patients recorded pain intensity on a visual analogue scale and pain relief from a 0% to 100% scale. They also completed



a daily sleep questionnaire assessing the various sleep parameters. At the end of each trial period, patients rated their level of satisfaction with each pillow and completed a Sickness Impact Profile (SIP).

"We noted a statistically significant improvement in patient ratings of morning pain intensity when they used the water pillow," said Dr. Pappagallo. "While we found significant pain relief for both the roll and water-filled pillows compared with standard pillows, that relief was higher for the water pillow than the roll."

In fact, he added, 10 subjects dropped out during the roll pillow trial period, citing extreme discomfort as the reason for non-compliance.

However the most compelling finding was the water-filled pillow's consistent association with statistically significant improvements in the overall quality of sleep as measured by both the SIP and sleep questionnaire.

## Thermal reflector

"When subjects used the water pillow they felt as though they slept better and had a better quality of life," said Dr. Pappagallo. "It is my opinion that there is a direct correlation between pain level and quality of sleep and that a good quality sleep can result in pain relief and improved function, emotional well-being and psychosocial behavior."

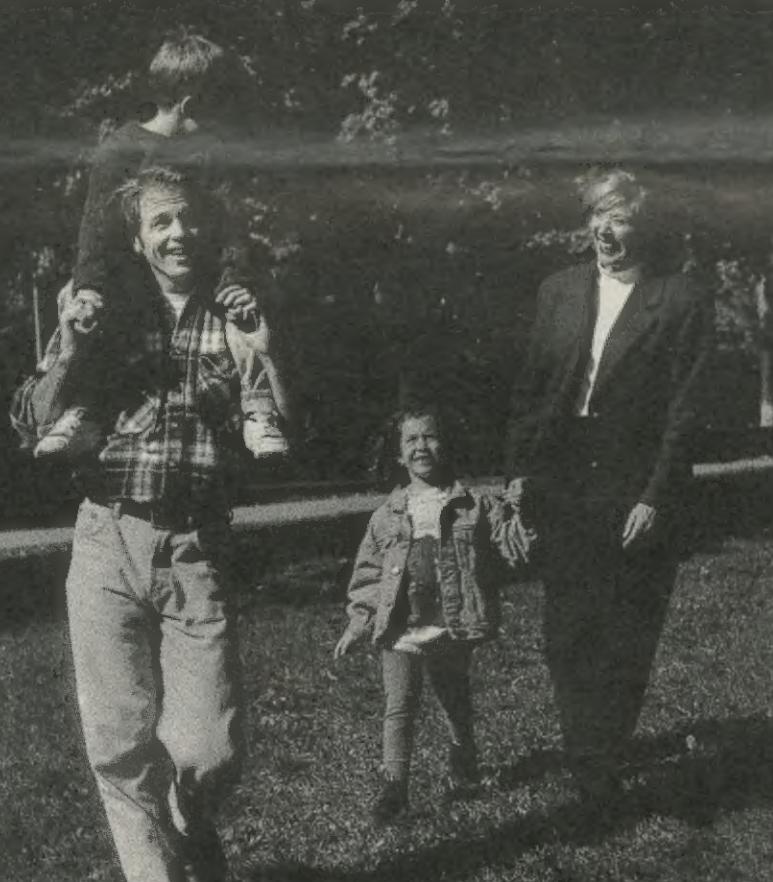
He added that the positive effects of the water-based pillow may be attributed to its ability to spontaneously conform to the position and shape of the head and neck as well as the constant application of heat permitted by the water pouch's thermal reflector.

"This certainly isn't a cure, but our assessment indicates it is a valuable and relatively inexpensive complementary treatment for benign cervical pain," he said.

"Doctors should look at pillows, not just medications, when treating cervical pain," he added.

The water-based pillow is currently being studied for use as a sleep aid for insomniacs, migraine sufferers.

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